Journal of the Amateur Photographic Society of Madras.

Vol. 2. DECEMBER, 1895. No. 1.

OURSELVES.

IN the last number of the Journal, we drew attention to the fact that that number completed the first annual volume, and asked that members would make some suggestions for the future carrying on of the Journal.

The Meeting held on the 6th instant was unfortunately attended by a few only, owing no doubt to other engagements, consequent on the Viceroy's visit to Madras, clashing with our meeting.

The Editors trust that some of the members will favour them with their ideas to improve the usefulness of the Journal and also that they will offer to contribute original articles on photographic subjects with which they may be familiar. As a further inducement to contribute, we annex a circular letter from the well-know English paper *Photography*, offering to reprint in their columns any papers which may be read before our meetings, if of sufficient merit.

"DEAR SIR,—As this Journal circulates the wide world over, we are desirous of making it increasingly useful to all who read its pages, whether in the Old Country or in that larger sphere which looks to her as mother, and to this end we desire to say that we shall be pleased to welcome news of photographic interest from all parts of the world, whether society reports or items of general interest which bear upon photography in any way. We shall be pleased to print, as fully as the importance of the subject demands, as we may be able to afford space, and in accordance with the usual press usages, papers in English, read before societies with which you may be identified—the same as with societies in Great Britain. These papers—or a condensation of them—would be printed in our pages separately from any report of the meeting at which they may have been read, if important enough. The MS. for these may be sent at ordinary book post rates, if labelled "MS. only" on the envelope or cover. The name of the sender should be attached, as well as that of the author of the paper. With heartiest good wishes for the welfare and success of your society, believe me,"

Yours faithfully,
THE EDITOR.

As there was not a single exhibit to compete for the prize offered by an enterprising member for the best specimen of a photograph taken by ordinary lamp light, the prize will again be offered at the February ordinary meeting.

It will be seen from the minutes of the December meeting that it has been decided to hold the Annual Meeting on Friday, 10th January, 1896, at 6 o'clock P. M.,—after the meeting it is proposed to have the usual dinner at 8-15 P. M., and it is hoped that as many members as possible will make a point of attending the meeting and staying to dinner afterwards: it may be noted that dressing accommodation is available at the Masonic Hall.

It is encouraging to notice that the number of members in our rolls, has increased nearly 40 per cent. during the past year and we trust that the increase of members will continue as in this past.

THE SOCIETY'S NEXT HALF-YEARLY COMPETITION.

WE wish to remind members that pictures for this competition should reach the Honorary Secretary not later than the last day in January next, and to express the hope that the majority of members, if not every one of them. will send in at least one exhibit. The approaching holidays will give a l members some opportunity for photography, and we would again repeat what we have so often endeavoured to emphasise, viz., that members should take advantage of these opportunities by which they are enabled to compare their work with the work of others. Each exhibit is criticised by the Judges and their criticisms are recorded in the Journal. Further, every member who wishes to see the exhibits can do so by visiting the Masonic Hall, if he be resident in Madras, or by requesting the Honorary Secretary to send them to him if he be resident up-country. In this way every practicable opportunity is afforded to members to reap the benefit of these friendly competitions, and we earnestly wish that an increasing number of our members would show the interest in these competitions which they deserve. The Picture Subject is "A GROUP OF CATTLE," and the Society's Rules for these competitions should be strictly observed. Forms of certificate and any further particulars can be had on application to the Honorary Secretary.

STALE PLATINOTYPE PAPER.

WE would draw the special attention of our readers to the results of a series of experiments communicated by Mr. Dunsterville at our last meeting and printed in the Proceedings. It would appear from them that stale platinotype paper can be made to yield good prints by printing out fully, and then developing with a very weak developer. The addition of mercuric chloride is probably unessential for the redemption of the print, its action usually being to impart a sepia tone. We wish that members would repeat or extend these experiments and report the results.

OUR ILLUSTRATION.

OUR illustration of an interior, by Mr. J. L. Walker, was taken, on a dull day at Bangalore in August 1894, with a Watson Lens, Stop f. 11. 3, and an exposure of 20 minutes was allowed.

REVIEWS.

Photograms of '95.—We have to acknowledge receipt of a copy of this work, which is a pictorial and literary record of the best photographic work of the year, compiled by the editors and staff of '*The Photogram.*' The printing, the reproduction of the pictures, and the paper leave scarcely anything to be desired. Its price is most moderate considering the expense of the reproductions, many of them whole page ones, which appear upon almost every page of the book. Many of the pictures are selections from the best work which has been shown at the two great exhibitions in London during the year, and the literary matter which accompanies them is interesting and instructive. Lovers of art, and photographers who aspire to produce artistic photographs, can hardly do better than invest in a copy and carefully study the composition of the works of the masters of our art as depicted here. It also contains articles by several Indian and Colonial photographers, who deal with local work: one of these, by Shapoor N Bedwar, we reproduce in full elsewhere.

We have received from Messrs. Percy Lund & Co. a copy of *Anthony's Photographic Bulletin* for 1896. It consists of a series of short articles by some 100 of the best practical workmen of the day, and is liberally illustrated throughout. At the end of 350 pages of most interesting matter are to be found 30 pages of tables and formulæ always so useful to the amateur. The Honorary Secretary will be pleased to circulate the copy to any members who may be desirous of adding to their stock of knowledge.

FLASH LIGHT PHOTOGRAPHY.

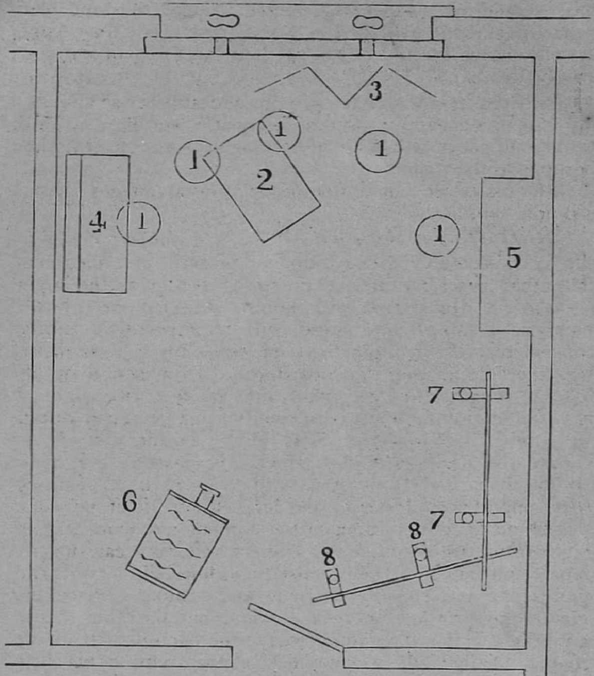
By H. R. N. Ellison.

Read before the Society, December 6th, 1895.

Flash Light Photography, from an artistic point of view, does not perhaps reach the standard of the ordinary methods, but, nevertheless, by its medium many pleasant mementos may be had which could not be obtained by any other process. For many years magnesium ribbon has been in use, with varying success, for purposes of enlargement upon iodised paper, but it was not till about the year 1887 that its practical application to the direct making of negatives began to be developed. By its aid perfect pictures can be had of the darkest interiors, and even caves where the light of day has never penetrated. I propose, for simplicity to deal with the subject under four headings, *i.e.*, "Home Studies," "Ball-room and other similar scenes," "Portraits" and "Apparatus."

Home Studies.—Such as taking a group in a room in one's own house. If the apartment is of moderate size—say 20 feet long by 13 feet wide and 10 feet high—clear out of it some of the furniture to give you elbow-room to work in. If the table is large, a leaf may be taken out, the sofa might be turned up out of the way, or a chair or two removed, as there are generally a greater number than are required. Having satisfied yourself in this respect, proceed to select the position for the camera, choosing the corner of least interest, but from which you will get the best subject matter. It will be well to notice if any mirrors or other reflecting surfaces are likely to be in the field of view, and, if so, to place your lamps on the same side so that they may not reflect the brilliant light, but only the light from the opposite wall.

Arrange two magnesium lamps each parallel with the side of the room, as near to the wall as possible, at about 5 feet 6 inches or 6 feet from the floor and slightly in advance of your nearest figure on that side; then fix two of the lamps 1 foot 6 inches or 2 feet 6 inches higher or thereabouts (being careful not to scorch the ceiling of the room) at a slightly obtuse angle; fix the side lamps as shown (see sketch). The fur-



1. Sitters.	5. Fireplace.
2. Ottoman.	6. Camera.
3. Screen.	7. Lamps.
4. Pianoforte.	8. Do.

thest one from the side should reach into the centre of the room; these lamps should be placed from 2 feet to 3 feet apart, the object being to provide a side illumination and a higher top front light; they should be connected by rubber tubing to one main of larger size, by means of a distributor. Your lamps should now be charged and made ready for lighting, arrange your figures in natural and easy positions, let them be doing something, and not all staring at the camera as if they wanted to be taken in the usual stereotyped portrait manner. The camera should be lower than usual, a little over table height (so that the lens is 3 feet 3 inches from the ground), you will then get more floor in, without having to tilt your instrument forward. The lens should be either a rapid rectilinear or a rapid wide-angle, working if possible to a plate in excess of the intended size. The lens must not be stopped down beyond the second largest stop. Your lens should be provided with a hood, projecting in front, to protect its surface from catching the glare of the light, which spreads out considerably; if you do not attend to this you will have fog. Having made all your preparations, you will find it is not a "bad move" to flash one lamp off first in order to accustom your sitters to the brilliant and sudden light. Then light up your lamps (you need not turn down the gas or other lights, as they have a good appearance if well managed), give a rapid glance over

your sitters, uncap the lens, and make your flash immediately: do not forget to cap the lens as soon as possible and put out the spirit lamps; then you may change the dark slide, refill the lamps with magnesium powder and go on again in a few minutes, but it is as well to open the door and a window to let the smoke out previous to taking another photograph. Rooms got up with oak varnished papers and varnished doors are sure to create disturbing reflections, and such should be avoided if possible. Quiet tints and matt surface papers will give the best results, and a little time spent in considering the subject will save time and disappointment eventually.

If there is room, and it is thought desirable to use a reflecting screen, a cheap four-fold one, about 5 feet high, covered with white paper, will assist in lighting up some of the darker portions of the room.

The plates used should be of the "instantaneous" standard now commonly in use.

Ball Room Scenes.—This is a subject demanding a considerably greater amount of skill and judgment than that described in the preceding section as the larger area to be illuminated will require increased power in the number of lamps, and these will require to be placed conveniently for manipulation, and especially so as to distribute the light all over the apartment. In a room about 90 feet in length, 35 feet wide and 25 feet in height, it is possible to illuminate successfully and get good results with time flash lamps. The first consideration is to choose the position of the camera, the next the best manner of fixing the lamps which are to be worked. A strong wire support should be stretched across the width of the room, a short distance in advance of the camera and about 20 feet high; from this is suspended a light frame work carrying six lamps and capable of being raised and lowered by cords and pulleys for conveniently charging and lighting. Place the greater power of light more on one side than the other to give a top light with a direction across to the opposite side of the room; at the side where the operator requires a little auxiliary illuminant, to provide a side light, let him place two additional lamps on separate carriers, and another one nearly opposite to light up the shadow side. All these lights, including those at the side, must be placed outside the range of the lens, the top lights being about 18 feet from the floor.

Such preparatory work as the above should, of course, be done before the company assemble and the camera placed *in situ* then it will only be requisite to lower your framework carrying the lamps, which should have previously been charged with spirit and magnesium powder. Your subject being ready, light and raise the lamps to the desired position, then fire the charge. After this you must lower and put out your lamps. It will be necessary to recharge and go on again *ad lib i.e.*, if the company does not object. Reflectors are requisite for the lamps, as they aid in sending the light to the far end of the room. If the Hall is large, it will be necessary to calculate the cubic area beforehand, and base your estimate of the number of flash lamps necessary on the data given above, because, what will suffice for a room of the size given, will be quite inadequate for one whose cubical contents are two or three times as great. All the tubing leading to each lamp should be carefully examined to see that there are no sudden bends and that all have easy turns; or else you may find that some of the lamps do not go off. One or more cameras may be employed. They should be fixed on a platform from 9 feet to 12 feet high, according to the length of the room. They should be fitted with rapid rectilinear or the rapid wide angle lenses, and should not be stopped down below the second largest stop. Careful focussing must be made to get the best average definition. This is most difficult to accomplish, owing to the weakness of the light and the defective illumination of the focussing glasses in general use. A good eye-piece for this purpose is sorely needed.

Portraits.—Very good portraits may be taken by means of this light, either in the usual studio at night or in an ordinary apartment, a convenient arrangement for the disposition of the flash lamps with a reflecting screen being all the accessories requisite. If in a sitting room or drawing-room, the ordinary furniture may be requisitioned, and thus portraits of quite a distinctive character may be obtained, provided that the operator has good taste and skill Each lamp should be fitted with a reflector of either tin, white cardboard, or a frame covered with silver paper: diffusion may be secured by fixing a light wire frame in front of the light, covered with transparent paper, oiled calico, or tinted muslin. It is, however, quite possible to get good lighting with the aid of diffusers.

Apparatus and Memoranda.—There are numerous flash lamps in the market at the present time, and fresh patterns are continually being brought out. I believe that those are at once the simplest and handiest in which alcohol or methylated spirits is used to produce the flame, and which have the magnesium powder blown up into the flame. The apparatus you now see was manufactured for me by Mr. Stevenson of the Madras Photo. Stores, somewhat after the pattern of one brought out by the late Mr Robert Slingsby. The lamp consists of an ordinary spirit lamp so arranged that the powder may be blown upwards into the flame. They may be manufactured by any bazaar tin man for a few annas. By flashing off a lamp when taking a small interior subject the exposure may be considerably shortened, and the full amount of detail in the darker portions be better brought out by combining the flash light with the daylight in a studio, every sitter might be taken with a drop shutter or even still more rapid exposures; $\frac{1}{10}$ of a second with four flash lamps would about correspond to an ordinary exposure of two seconds in a studio.

Always bear in mind Oliver Cromwell's advice to his soldiers "keep your powder dry," and have plenty of it by you.

Provide a plentiful supply of spirit when working away from home.

In order to test the rubber tubing, place your hand over each lamp to feel if the draught of air is equally good through each one. Before charging them with the magnesium powder keep your lenses carefully screened by a hood of some kind.

Arrange your light to go across, giving greater power from one side, rather than from the centre.

Use reflectors for each lamp.

If the negative appears very thick and dense after drying up, it may be reduced generally by immersion in a dilute solution of perchloride of iron. Keep in a stock bottle and add a small quantity to the water in your dish until it becomes a pale straw colour; carefully watch its action, as it is more energetic on some maker's plates than others. Immediately its action has been sufficient, take out the plate and place it for a few minutes in a weak hypo solution; afterwards wash it well. When the negative is again quite dry, any dense portions may be treated locally by the application of the stump with fine pumic powder and absolute alcohol, then varnish and afterwards coat the back of the negative with a pure matt varnish.

A great amount of artistic skill may now be brought to bear on the back of the negative: raw sienna moistened and rubbed into the matt varnish with the finger over the thin

portions will help to bring out detail in the printing, while scraping off the coating of matt varnish over any too dense portions will assist in making the negative more harmonious. In addition, fine tissue paper may be placed over thin parts to keep them from printing too deeply—in fact all the dodges known to retouchers may be utilized to complete a successful negative for printing.

A DAY ON THE NORFOLK BROADS.

By Surgeon Major J. L. Van Geyzel.

Those who can spare the time and are in search of change from the usual routine of holiday life, when at home, will never repent a week or two of sailing in the Broads district—over the winding rivers, the narrow dykes, and those inland lakes into which the rivers spread. They might start from Yarmouth up the Bure, and work their way along the Thurne; then having "done" Horsey Mere and Hickling Broad, they might return to the main stream, and go up the Ant, through Barton Broad into Stalham Broad, return again to the main stream and follow it to Wroxham and then row up to Coltishall. This would be as delightful a trip as one can have, and would afford plenty of work for the eager cameraist.

All sorts of craft are available for such an outing, from 3 to 30 ton yachts, or large pleasure wherries, according to the accommonation required. They are fitted with every convenience for cooking and sleeping, and they also carry crockery, cutlery and linen. All one has to take are rugs, towels, and provisions; and the stock of the latter can be replenished on the journey at various places. A small yacht fitted to sleep two persons, and man in forepeak, the whole fully furnished (without provisions) can be got for about £5 a week. One can get up to 3 cabin yachts accommodating 4 ladies and 4 gentlemen for about £12 a week, in fact almost anything to suit one's requirements for sums which are very moderate even when compared with the price of lodgings ashore at a holiday resort. A boat of light draught should be secured as some of the broads are not navigable for craft of deep draught, otherwise one must take a dinghey in tow. The principal yacht owners in either of the starting places would serve one well: either Loynes, or Press, or Collins and Son of Wroxham; or Brown of Great Yarmouth.

To any one who has only a very limited time at his disposal, and wishes to spend "a day on the Broads," Wroxham is considered the best starting point. At any rate, the most picturesque and beautiful part of the Broads District lies near Wroxham. It is on the G. E. Railway, and is within 20 minutes of Norwich by rail. The writer happened to be on the spot, and so to get to Wroxham was a matter of very little time. Mr. Press, whose boat building yard is near the Wroxham bridge (which is the usual starting point), found us a beautiful little yacht which was quite new, having been launched only 3 weeks ago. She was recommended for her speed as she had won the Cruiser's Cup at the Wroxham Regatta a fortnight before.

The "*Meteor*" was a cutter-rigged boat of 4 tons, nearly 31 feet in length over all, 7 feet broad in the beam, and drawing 3 feet, 3in. of water. For'ard was the forepeak where the skipper found accommodation for himself, the stove, cooking utensils, &c. From the mast extending to about 7 feet aft was the cabin, with its top slightly raised above the deck level so as to give plenty of headroom. On each side of the cabin was a well-stuffed leather-covered cushion which served for a bed at night and a sofa in the day, two shelves ran along the entire length of the cabin, one above each cushion, but well out of the way when one was sitting, and a kerosine oil lamp fixed to the bulk-head inside the cabin completed the fixtures. The crockery, glass, cutlery, &c., were stowed away in lockers, placed under the seats of the "Well," which extended nearly 6 ft. aft of the cabin. Such is a short description of the craft in which we found ourselves. She had just had a few finishing touches put on to get her ready for a fortnight's cruise and so we were very well suited for the day. A sovereign secured her, including the skipper.

It was half-past ten, and the morning mist had just cleared away, leaving a slight haziness in the atmosphere indicative of a hot day. We were a party of 5 including the skipper, and in a few minutes after boarding the "*Meteor*" the skipper shackled on the jib sheet blocks and hoisted the sail, the main and top sails having already been hoisted. The head and stern ropes were cast away, and she was pushed off into midstream in so light a breeze that the reeds, which lined the river bank, were standing unmoved, though the light branches of the willows on the bank swayed ever so little. Even the surface of the water was hardly ruffled by it, she glided on ever so gently passing through some of the most charming spots that we had ever been in. The yacht was easily tied up against the bank to permit cf the camera being brought into action, and oh! how sore were the regrets that the number of dark slides was limited. One can with much profit and pleasure spend several days with a camera on the country adjoining the first 2 miles of the river from Wroxham. But the time also was limited, so we had to move on. The wind was so light that it was nearly an hour from starting before we approached the dyke into Wroxham Broad. Having got clear of the banks we ran down the centre of the lake and tacked back again; but even here there was only enough breeze to afford comfortable plain sailing and no more. There were many other vessels on the lake, noticeably several open centre-board boats with large balance lug sail, a sloop and two wherries with their great tanned sails and large parties on board of them lounging on the for'ard deck. The sun was now shining with such vigor that some of us wished for "topees" and iced drinks. Having neither of these luxuries aboard we decided to get back to the river; and another hour's run along the Bure, helping ourselves now and again with the quant, brought us to Salhouse Broad, a favourite haunt of numerous artists. We, however, tied up not far from the entrance, got ashore with the Camera for half-an-hour, and returned to find that the lady of our party had laid the luncheon ready. Our appetites were quite equal to the occasion, for the bracing air and the exhilarating surroundings had worked their effect. With abundance of crockery, glass and cutlery provided, there was no occasion to use the same knife for the butter and the marmalade; and when finally the peaches were placed temptingly before us we were compelled to cry "Enough! Hold!" But they were not spared all the same. The skipper, too, having had his share, washed up the things in a bucket of water dipped out of the river and stowed them away in the lockers. We once more strolled ashore with pipes and tobacco well alight, while the skipper meantime swabbed down the deck and made everything ship-shape. All was now ready and we entered the Broad for a sail. Returning to the river we sailed up with a fair breeze as far as Horning, passing on the way many a charming spot for pictorial workers. As it was now reckoned that it would take us all our time to get back, we turned the yacht's head homeward. Tacking the whole way we found ourselves at the Dyke leading to Wroxham Broad much sooner than we anticipated. The wind was much fresher, and a single tack took us into the open water once more. There was now a smart breeze blowing, breaking the surface of the water into wavelets. The lake, which is about a mile long by over a quarter

of a mile wide, affords splendid sailing for a fast boat in a steady breeze as we were having. We beat across the Broad and ran down the centre of it with the wind on our beam, the yacht heeling over and the crew hanging on, the foaming water washing along the lee plankway. While we were luxuriating in the delightful sensation of being carried along at such speed, with a sudden gust she lay over more than ever; a crash in the lockers indicated that the crockery had got loose, the camera which was on the berth in the cabin had tipped over on to the deck, and the case containing dark slides was standing on its edge. In a few moments, things were put right again and made fast. Backwards and forwards we sailed on the lake, proud of our craft, and getting all the pleasure we could out of the yacht, so recently proved to be the fastest on the Broads, and so she ought to be for she carried a baloon jib, for her size, which is "enough for anything" as a skipper whom we passed remarked. The sun was now sinking and the breeze dropping, so we regained the main stream, and slowly made our way back to Wroxham bridge, enjoying the coolness of the evening. Arrived there, we left the "*Meteor*," feeling that we had had a thoroughly delightful day and regretting that it had ended.

PHOTOGRAPHING INTERIORS.

DR. HUGO ERICHSEN, contributing to the *American Amateur Photographer*, says:—

The photographing of interiors is one of the most fascinating branches of photography.

In order to succeed in taking interiors, a perfectly rectilinear wide-angle lens is desirable, although not absolutely indispensable. Many amateurs will be confined to the use of their rapid rectilinear or single view lenses, and, with due care, may be fairly successful; but the best results are obtained with a wide-angle lens. A square camera is preferable to one with conical bellows; whenever the latter kind is used it should be slightly larger than the plate; a 5 x 8 camera, for instance, will do very well for a 5 x 7 picture. The camera should be provided with a vising front and a swing-back, as upon these will depend, to a great extent, the obviation of a bane of interior photography, the tilting inward or outward of straight lines at the top. Halation, which was another drawback to the practice of interior photography, has been done away with by the invention of non-halation plates Ordinary plates may be provided with a non-actinic backing, but as non-halation plates are not much more expensive than ordinary ones, there is no good reason why the latter should be used in preference to the former, which give no trouble to the amateur.

In interiors much depends upon the point of view from which the picture is taken.

After the best point of view has been found, the proper arrangement of the contents of the room must be seen to. Generally it is best not to move the furniture about too much and to put everything in apple-pie order; it will rob the room of its familiar appearance, which is its principal charm. A little disorderliness oftentimes increases the picturesqueness of the photograph. Much depends, of course, upon the innate tact and taste of the amateur, who must be possessed of the artistic sense in order to secure the best results.

If possible, interiors should be lighted from the side and rear, or, if practicable, from the top. Windows sometimes cannot be avoided; some rooms contain more windows than wall space. If a window is included in the picture, the best thing that can be done is to close the shutters tightly, pull down the shade and take the room by the aid of light from the side or the rear. Then, when a sufficient exposure has been given, the window may be opened for a few seconds and in that way a satisfactory image of it obtained. Some do not bother with the window during exposure, but restrain its development by means of a solution of bromide of potassium, applied with a camel's hair pencil after sufficient detail has been obtained, or reduce it with Farmer's solution in the finished negative. For my part, I prefer to take such a view by flashlight. I have never used a flashlight lamp, but generally have recourse to magnesium powder cartridges. I lengthen the fuse of these by attaching a piece of twisted paper thereto, which, when ignited, burns slowly and enables me to retire to a safe distance before the explosion takes place. Magnesium powder is objectionable on account of the smoke and dust that result from its explosion. I understand that a flashlight lamp has been invented recently that removes these objections, which would greatly facilitate interior photography and render flashlight more popular than ever. Whenever flashlight is employed for interior photography, the lens should be screened from it. Care should also be taken in lighting it, or burned hands and fingers will be the consequence. The flash of the powder is blinding, hence the face should be averted during its explosion. Some authorities advocate a double flashlight. It is true that a softer effect may be obtained in this manner, but at the expense of a proper distribution of light and shade. It seems to me that the shadows should correspond to the source of light.

When interiors are taken in the daytime, diffused light is preferable to sunlight. Generally, however, daylight is insufficient for photographing interiors, and the amateur can be spared much time and trouble by the use of magnesium powder. I have exposed plates for hours in ill-lighted rooms, and yet, on development, found them to be under-exposed. With flashlight there is no danger of this, and one need not "prowl around the camera for hours to keep intruders away," as Octave Thanet says

The reflection from picture glass is apt to give one trouble unless the angle of the picture is changed by placing a small wad of paper behind it or coating its surface with starch. Sometimes the picture will have to be removed and something else put in its place before a good photograph can be secured.

I generally focus with a large stop and then inserr the smallest I have; in this manner I secure the detail that is indispensable in an interior.

Whenever figures are introduced in an interior they should apparently be occupied in some way, as for instance, reading, sewing, playing the piano or twanging the strings of a guitar; under no circumstances should they be made to look out of the picture and toward the camera.

OUR HOME LETTER.

The past month has been rather a quiet one in the photographic world. The great exhibitions in this country are now closed; out-door photography is, to a great extent, at an end, and we are mostly occupied at present in mounting prints, making lantern slides and enlargements, framing our best pictures or putting them in albums.

A notable man both in photographic journalism, and science passed away a few days ago. Mr. J. Traill Taylor, for many years editor of *The British Journal of Photography*, was much respected by all who knew him. Having reached the age of 69 he had begun to feel that his active work should be drawn to a close, and was contemplating resigning his office early next year. He took a short trip to Florida U. S. A. in order to inspect an estate which he owned there. Soon after his arrival he was attacked with dysentery, and succumbed in a few days, meeting death remote from his friends and his relations. He was born in the Orkney Islands in 1827, and although educated for the ministry, the views he held were too broad to enable him to pursue that calling. He preferred his father's business of a watch-maker, and for some years in Edinburgh occupied himself in this trade. It was here that he became acquainted with Sir David Brewster, Fox-Talpot, and other photographic scientists of the times. He soon began to write articles for the different newspapers and magazines, and ultimately became a regular contributor to *The British Journal of Photography*, which finally led to his accepting the post of editor when it became vacant by the retirement of George Shadbolt. He wrote a book on *The Optics of Photography* a few years ago, and was also responsible for the latter editions of *Hardwich's Photographic Chemistry*.

It is said that Prof. Joly, of Dublin, has disposed of the patent rights of his process of colour photography in the United States for £6,000, from which one may infer that it is still profitable to invent. Talking of colour photography, what is known as the three colour process in block printing is rapidly becoming popular. Several of the best magazines, photographic and otherwise, are constantly giving examples of this process. One of the best yet seen is in a recent number of *The British Printer* and ranks equal with the best chromo-lithograph, while of course the cost of production is considerably less.

The National Association of Professional Photographers intends to join the Photographic Convention at their next annual gathering, so that it is not unlikely the meeting at Leeds next year may gather together the largest number of people interested in photography yet seen in this country.

Discussions on art are being freely indulged in at present. In the London dailies, in the Photographic magazines, and in the club rooms the topic is always arising. The painter-artists are many of them very vituperative, and by their language seem to imply to those who can read between the lines, a feeling as though photography were in some way cutting the ground from under their feet, and that therefore they decline to acknowledge it. Much of the argument raised by this school is based on wrong premises. The real truth of the matter is this: one may have a photographic artist, and a painter artist. One man can produce a masterpiece by his brush or by his pencil, another by his camera. With the first skill in execution is brought into play, with the latter skill in selections. It may be true that more genius and talent is needed in a good painter artist than in a photographic artist, but they are both artists for all that. There is art enough in photography though it may not be of quite so high a nature, but I have a great dislike for controversy and argument, so I will stop this letter before I get warm on the subject.

MATTHEW SURFACE.

PROCEEDINGS OF THE SOCIETY.

:o:

Monthly Meeting held at the Masonic Hall, Mount Road,

Friday, December 6th, 1895.

Mr. F. Dunsterville, *in the chair*.

The minutes of the last meeting having been circulated to members were taken as read and confirmed.

Read Letter from the Editors of *The Photogram* stating that they have in contemplation a series of prize competitions specially for their foreign and colonial readers, and soliciting any suggestions as to the lines on which they should be run.

The Honorary Secretary will be glad to forward any suggestions which occur to members. It was thought that the chief obstacle in obtaining exhibits from India was the usual short notice afforded.

Read Letter from the Lady Superintendent of the Military Female Orphan Asylum, Madras, forwarding prospectus of various competitions, in which prizes are also offered for "MOUNTED PHOTOGRAPHS—(*a*) *Landscape Rs. 15*, (*b*) *Figures Rs. 10*. All articles sent for competition will become the property of the Committee, who are organising a fancy sale for the purpose of raising funds in order to purchase an organ for the Asylum Chapel. It is also open to any one to contribute articles not for competition or to subscribe to the Organ Fund. The object is one which is deserving of support from all photographers. The following are the Rules of the competition:—

1. All articles must be sent in on or before 31st January 1896.

2. The articles must be delivered at the Asylum with all charges paid, addressed to the Lady Superintendent, Military Female Orphan Asylum, Poonamallee Road, Egmore, Madras, (to whom all communications or enquiries, enclosing stamped addressed envelope, should be addressed.)

3. The name and address of the sender (with the name or number of the competition) must be attached to each article sent in.

4. An addressed postcard must be sent in with articles requiring acknowledment.

5. The Prizes will be adjudged by a duly qualified Committee.

PROPOSAL OF NEW MEMBERS.

Surg.-Major Van Geyzel proposed, and the Honorary Secretary seconded, Surg. Lieut.-Col. W. G. King.

Mr. T. Mitchell proposed, and Mr. F. Dunsterville seconded, Mrs. Ida Bedford, Madras.

Mr. J. Cook proposed, and Surg. Major Van Geyzel seconded, Mr. J. P. Higginbotham, Mysore Gold Mines, Kolar District.

And they were all duly elected to be members of the Society.

MONTHLY EXHIBITION OF PICTURES.

The subject was "A Horse." Comparatively few members sent in pictures and the average quality was not as high as of late. It was considered that one of Mr. Ellison's pictures was the best of those shown.

MRS. W. S. SHAW.—A somewhat shorter exposure would have improved the picture and given the horse less opportunity of moving: the development might have been continued a little longer and given more contrast. The print was made too dark.

A. Chatterton.—Two prints in iron, one of which was fair—the other was badly stained.

H. R. N. Ellison.—3 prints. Two of them were rather too dense, with lack of detail in the high lights: the third was very good, the best shown.

M. Clementson.—A very satisfactory picture, but spoilt by vignetting.

H. H. The First Prince of Travancore.—Two pictures, one a very good enlargement of the head and shoulders of a fine horse—exceedingly well executed, but the appearance of the animal spoilt by the uneven cutting of its mane. The other was a print on glazed gel-chlor paper; the horse and his rider are too large for the size of the paper on which it is printed, there being only about the eighth of an inch between the top of the rider's cap or the horse's hoof and the margin of the paper.

Miscellaneous Exhibits.

A few folding cards for Christmas and the New Year from Messrs. Babajee Shakharam and Co., of Bombay, were shown. They were very nicely got up and intended to hold either fixed or loose photographs. We regret that we were unable to notice them in our November issue, as members could not do better than give them a trial.

Mr. A. Chatterton exhibited an Instantaneous and Time Shutter by Thury and Amey, which works on a 12 x 10 inch plate. The mechanism is certainly most ingenious, and by its means vibration is reduced to a minimum. The only drawback we noticed was its great weight.

Mr. Dunsterville showed the results of a series of experiments, made with platinotype paper which had been in the country over 10 months and to members who use this paper these results are extremely interesting.

No. 1. *Not* exposed to light, washed in acid and plain water, gave a clean white surface.

No. 1*a*. *Not* exposed to light, developer poured over for 2 minutes: washed in acid and plain water. *Developer*—½ part oxalate of potash, ½ part glycerine, 4 parts water. A dirty mealy surface, quite useless.

No. 2. Half exposed and half shaded with thick brown paper, developed, washed in acid and plain water. *Developer*—½ part oxalate, ½ part glycerine, 4 parts water. The exposed half gives a fine black. The unexposed half is mealy, but not so bad as No. 1*a*.

No 3. Print from clean bright negative with strong contrasts printed as for good print. *Developer*—½ part oxalate, ½ part glycerine, 4 parts water. A very dirty print, colour of No. 1*a*.

No. 4. Print from same negative, over-printed somewhat. *Developer*—½ oxalate, ½ glycerine, 10 water. A slight improvement on No. 3.

No. 5. Considerably over-printed, developed for a short time only in ½ oxalate, ½ glycerine, 4 parts water. Better than No. 4 but still mealy.

No. 6 Considerably over-printed. *Developer*—½ oxalate, ½ glycerine, 20 parts water. A decided improvement.

No. 7. *Very* considerably over-printed. *Developer*—½ part oxalate, ½ part glycerine, 24 parts water and 2 minims mercuric chloride solution (5 per cent.) to each oz. of developer. Sky and water very fair but principal objects much too black.

No. 8. Almost printed out. *Developer*—½ oxalate, ½ glycerine, 40 parts water and 6minims mercuric chloride sol. to each oz. of developer. If the principal objects had been shaded, this would have been an ideal print, the mercuric chloride giving a beautiful sepia engraving tone, and the whites are quite clear. Members should certainly try this developer.

Technical Work.

The Honorary Secretary gave a demonstration on flash light photography and exposed a plate on the members present. His paper on the subject will be found elsewhere.

The Annual Meeting.

It was unanimously decided to hold the annual meeting and the dinner of the Society at the Masonic Hall, Mount Road, on January 10th 1896.

The meeting will be held at 6 p. m., and the dinner at 8-15 p. m. It is to be hoped that there will be a large gathering at the meeting, as well as at the dinner. Members should send in their names, with those of their guests, to the Honorary Secretary not later than January 8th.

CORRESPONDENCE.

Note.—*Members are invited to contribute to this column the result of their experiences, the formulae and method of working they like best, and the shifts and devices they are put to when overcoming any difficulty; also any enquiries they may wish to make.*

Also, under this heading, the Committee will publish their criticisms on Pictures sent to them during the month. Many photographs are good in many ways, but as it will be of much more value to point out their weakness than to extol their virtues, the bad points only will be mentioned. Prints should be sent flat, with name and address of sender, together with particulars of exposure given and plate and lens used.

To the Editors.

Dear Sirs,

It may interest some of your readers, who are in the habit of using Sulpho-pyrogallol as a developer, to receive evidence of the keeping qualities of this solution. Shortiy before I left home in September 1892, I had occasion to buy a bottle of solution, and developed a few plates, and the remainder of the solution was carefully sealed up in the bottle and put away until my next visit home! When at home two months ago, (*i. e.*, three years after) I opened this bottle, developed about 2 dozen whole plates with some of it, and found it in admirable working order. It was not even altered in color, being a pale pink. I have left the remainder until my next visit.

Madras *12th December 1895.* Yours faithfully,

V. G.

EXTRACTS.

Photography in India.

By Shapoor N. Bhedwar.

[*Photograms of '95.*]

India is a vast country, divided into presidencies and provinces, of which the most important are the Bengal, Madras, and Bombay presidencies, and the provinces of the North West and the Punjab.

Burma is now also an integral part of the government of this country. It is well known that India has a teeming population, with a diversity of race, languages, manners, social customs, religious prejudices, and the like; and as education and enlightenment are limited to select centres, so far as the mass of the people is concerned, the art of photography is a sealed book and only a small fraction of the Indian population practises or is interested in photography.

Owing to all these drawbacks, Indian workers are difficult to reach; and therefore much in the way of progress cannot be expected.

It may be safely said that the practice of the art in this country is chiefly confined to the European section of the community. Of these photographers the greater number are merely dabblers, having little or no leisure for higher study. From such persons to expect a progress in the art is hopeless.

It is, however, a significant fact that photography is being gradually taken up by Indian gentlemen of position, who have intelligence, wealth and leisure at their command, and in some cases gifted with artistic faculties. The art has proved attractive to some of the enlightened ruling feudatory chiefs in this country, and among them the Maharaja of Tipperah, and his son the First Prince of Travancore, may be mentioned.

Formerly there was hardly a single native photographer of any repute in this country, but now there are a select few, and within the last year or two their work has come to be known and admired in England.

The noticeable event of this year was the International Exhibition of the Calcutta Society in February last, which was the largest and most successful exhibition ever held in India, and which might be taken to indicate the progress of the art more surely than anything else. It was apparent in this exhibition that the Indian exhibitors cannot as yet compete (with a solitary exception or two), with the leading European and American exhibitors.

The taking of a photogram by the aid of electric light was accomplished during this year, and for the first time in this country. The photogram was of the audience seated at the Novelty Theatre in Bombay, at night, to witness the performance of a play, in honour of and in the presence of, the Hon. Mr. P. M. Mehter, C.I.E., a leading citizen of that place. The attempt was highly successful, and a few copies of the photogram were finished, framed, and sent round to the audience within an hour and a quarter of its being taken.*

At the commencement of this year a new Photo Journal was started in Madras, viz., *The Journal of the Amateur Photographic Society of Madras*. This paper is edited by the honorary officers of the society, and though closely approximating in its design and scope to the older Journal of the Photographic Society of India, it contains a good deal of useful original matter, and will doubtless survive and do useful work.

The Journal of the Photographic Society of India keeps pace with the times, and considering the comparatively small section of the public to which it appeals, and from which its contributors are drawn, it continues to prosper and is read by almost every photographer in India.

As regards the practice of art photography amongst the professionals of this country, it may be said to be a thing quite neglected; but if the leaders of the profession, well versed in the art, after a hard struggle succeed in creating a taste amongst the people for the higher art, the progress of art photography need not be despaired of. With this object in view, I delivered at Bombay two public lectures on art photography in the vernacular language before a crowded native audience; and intend to give a few more on the same lines at the Novelty Theatre at Bombay.

The excellent series of papers contributed to *The Journal of the Photographic Society of India*, under the head of "The Indian Amateur Photographer," extending over the last five years, has this year been completed and published in book form. Besides being an excellent text-book for Indian amateurs, it is a valuable book of reference in photographic matters generally. It is remarkable as being the work of an amateur, compiled during the scanty leisure afforded by his official duties. The author of this work is Mr. George Ewing, late treasurer of the Society, and well known as a constant contributor to its Journal, and a regular exhibitor at its annual exhibitions.

In conclusion, it may be remarked that the entire absence of due appreciation of art photography by the general public, and the flooding in of common-place conventional work, in which white faces, with the inevitable posing chair, a teapot, and a flower-pot, are the order of the day, go to prove the apathy of the majority of the public in art photography, and the non-importance attached to it through the length and breadth of this vast peninsula.

A day may come, well nigh it may be, though I find it hard to believe that it is so near, when a Robinson, a Gale, a Sutcliffe, a Sawyer, a Blanchard, a Hinton, India may have the good fortune to produce; but till the very rudiments of art, knowledge, and perception, be inculcated in the mass of the people, till then the delicacy in conception, refinement in, and brilliancy of treatment and effect of, the nicest touches of shade and tone, of life and light, all, all will be lost; and the hope cherished by ardent photographers for the onward progress of the art in India is faint, and for a long time to come will be a hope indeed, to be cherished and dreamt of by a small enlightened and art-loving portion of the population of this vast country.

[* This successful piece of work was carried out by Mr. Bhedwar, the writer of these notes.—Eds.]

Photography in the Chinese War.

Shyozabaro Totani, Captain of Infantry.

Last year, as soon as the Imperial declaration of war had been made, the surveying officers of the War Department decided to organise a complete photographic staff for the occasion, and as it seemed likely that the military authorities would order a part of this staff to set off at once with the first army corps, we were ready and awaiting orders. At this stage of the war, however, for some reason the government decided not to permit any to go to war except the men in actual fighting service. We were all disappointed, and all the preparations seemed to be in vain In all Korean conflicts, and on the Yellow Sea, on land, and on water, our country was constantly victorious. At this time the second army corps was prepared to take the field. His Imperial Majesty's head-quarters were removed to Hiroshima, where all military movements were decided upon. At this time, and without any warning, we received a telegram from headquarters to send to Hiroshima a photographic staff, consisting of not more than ten persons. The preparations had to be hurriedly made, and we took only a 12 × 10, and a cabinet outfit with all necessaries for developing, printing, etc. The staff, consisting of nine persons, Messrs. Ogura, Murayama, Tabuchi, Yenuma, myself and four coolies, hurried to Hiroshima, from where we expected to be sent off along with the second army corps. There were many difficulties in the way, of which the first and greatest was, that as photography is not recognised as a department of an army in the field it was considered by military men, with a few exceptions, as a matter of no importance in time of war, being merely an amusement; besides only a few knew that we constituted a photographic staff of the army, the majority took us to be a party of professionals. However, this last mentioned misunderstanding gradually passed away, and the importance of photography in connection with war was at last recognized.

Although the first transportation of the second army corps took place in the three days from the 17th to the 19th of October of last year, the transportation of our staff was postponed until the 23rd of the same month, when the second transportation took place, and on the 28th we arrived and landed at Hwayuan-kow, China, where we met the army commanding department. From this department we received

what it was deemed necessary to carry along with us, namely, one day's supply of uncooked rice, three days' supply of ready-made food, blankets to protect us from the cold, a tent, some waterproof paper, and three meals besides. All these provisions, along with the photographic apparatus were, of course, too heavy for our four coolies to carry, so we made an application to the commanding department for track waggons, and eight extra coolies. Our application was favourably received, and at last we had all convenience for travelling.

Getting two days in front of the commanding department we started from Hwayuan-kow, and at Hishikwa we came up with the first division, and had the pleasure of being present at the engagement at Kinchow and Port Arthur. After this we were attached to the second army corps and despatched to Weihaiwei. During all our movements we kept our equipment as light as possible by carrying nothing besides the apparatus actually needed for photography. We penetrated into the actual engagements where we were under showers of bullets. We regret that in spite of making all possible efforts, the results are not so good as we had hoped for. The reason is that we had only one camera, a 12 × 10 size, to be relied upon, and nearly all the engagements were in the early morning before dawn, and their duration was so short that they were finished before the break of day. Besides this, the strong wind and feeble light during the severe cold season were a great source of trouble, which very often compelled us to be satisfied to take a very limited portion of space. After the capture of Port Arthur, I made a proposal to headquarters for a further extension of the staff, and sent Mr. Ogura back to Japan to prepare another outfit for 12 × 10, so as to divide the photographic staff into two parties. We were too late, however, for the day when Mr. Ogura came back to China with the new outfit, and arrived at the commanding department, was the day when the Chinese Northern Squadron surrendered, and sometime before that Weihai-wei had been totally reduced.

I wish to say a few words about the development of negatives and printing during that time. The difficulties we found in these two manipulations were greater than we had ever dreamed of. The exposures were made in feeble light, in most cases quick exposures being of course necessary, and development was carried out in a room bitterly cold, with imperfect apparatus, so that in the case of shutter exposures two or three hours were occupied in development. During this time the developer froze into ice, as we had not much fuel to keep the room properly warm. All day time was occupied by taking pictures and printing, so we were compelled to develop and tone in the evenings, and often we worked through the whole night. As to the printing, many hours were needed in the poor light we had. Moreover, it was very difficult to obtain any pure, or even nearly pure water. To get water we had to send some miles up the mountain, or to melt ice from neighbouring ponds. The water froze very rapidly, so that at times manipulation was almost entirely beyond our control. In some cases the prints, after toning and fixing, being spread out to dry, became frozen, small grains of ice forming all over them in spite of the room being kept as warm as we could keep it. In short, the effect of a cold climate resulted in such difficulties as we had never imagined.

On the other hand, one thing very convenient was the dark-room. We added a dark tent to our equipment, but only used it twice, once at Hwayuan-kow, and once at Kinchow. Ordinary Chinese houses are made of stone or brick, and to each room there is only a small window, and half the room has no flooring. These we made for waste water. By shutting the window and hanging a blanket at the entrance we had quite a comfortable dark-room, or rather the Chinese houses are dark-rooms in themselves. What I have described are a few of the experiments we met with during the war. Concerning details, I hope the two experts, Messrs. Ogura and Murayama, will write to you at some future time.

In any case, though we got no good results, it may be worth while to make it generally known that our army had a regular staff of photographers, organised to make photographs during actual battle. The facts will testify to the progress of photography in our country, and we shall have records of this historical war for all times.—*From the Shashin-Sowa.*

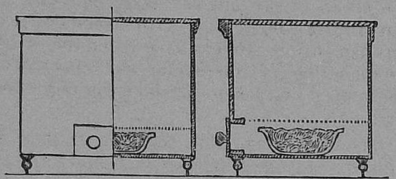
Portraits by Wire.

Amongst the inestimable services rendered to science and art by photography, that of transmitting portraits by telegraphy undoubtedly is the most remarkable. The merit of discovering this remarkable process is attributable to a German inventor named Amstutz, of Cleveland. His method, which is simple, appears to be an adaption of the well-known process by which such objects, say, as gunstocks are now made by means of drills which, through the instrumentality of an ingenious mechanical arrangement, are made to follow the contour of a revolving model, an exact copy of which they reproduce from a piece of wood subjected to their operation while it revolves at the same speed as the model. For the telegraphic transmission of photographs there are placed at the despatching and receiving offices, corresponding cylindrical rollers, similar to those employed in the phonograph, the equal and parallel movement of which is assured by clockwork. In contact with the cylinder at the despatching office is a pencil, the point of which when the cylinder is made to revolve, traverses it in spiral lines from end to end. The pencil is so adjusted that the strength of the current varies according to the resistance offered to the pencil point by any variations on the surface of the cylinder. So long as the surface is even there is no variation in the current; but should it present any inequalities the strength of the current varies with its risings and falling while the pencil still continues to describe its close spiral lines. This varying current is, by proper electrical means, transmitted to the receiving station, where in its turn it so influences a pencil in contact with the wax-covered surface of the receiving cylinder as to cause it to impress upon it grooves varying in depth according to the changing strength of the current. In order that a photograph may be thus transmitted, it is first by the ordinary process of photo-printing to be converted into a gelatine relief, which is placed upon a transmitting cylinder, which is then set in motion. Following according to the process described the rising and fallings of this relief, the pencil of the receiving cylinder reproduces in close spiral lines a sort of elementary copy of it.—*The Practical Photographer.*

Keeping Plates in Tropical Climates.

In tropical and sub-tropical climates no greater difficulty besets the photographer than that occasioned by the attack of mildew on plates and papers, especially during the rainy season. The editor of *The Journal of the Photographic Society of India* writes bitterly of his experience of the rains last year. "Everything" he says, I had, went to the bad. Lenses were covered with branching fungi, hand cameras wouldn't work, springs rusted, shutter blinds became sluggish, double backs refused to settle into their places, shutters to draw out, and, as I have said, plates and paper went to the bad. So I bethought me of the virtues of chloride of calcium, and wending my way one day to the Survey Office I was shown a box

there which was used for drying carbon paper. It was ridiculously simple. Any ordinary teakwood box with a well fitting lid will do, and about 1lb. of chloride of calcium in an old pie dish keeps it going. At the Survey Office they put the pie-dish in the bottom of the box, and anything



light to be dried is suspended over it. But I improve on it by making a false bottom of perforated zinc sheet on mine, fixed about three inches above. On this I place everything that will spoil in rains—plates, paper, cameras, everything, and I have educated one of my servants to remove the chloride of calcium twice a week and roast it afresh over the kitchen fire. The contents of the pie dish come out of the box half liquid and go in again in calcined lumps. The effect on my belongings has been magical. My last cold weather stock of Edwards and Lumiere's Iso. plates, ten months old, are as good as new. Imperial films perfect. Bromide papers, all kinds AI. P.O.P. glazed ditto, matt giving way, gelatine chloride papers glazed good, matt deteriorated. Lenses clear, cameras, slides, shutters, everything perfection. I am so sure of the value of this box that I strongly advise my readers to go and do likewise. No local dealer should be without an arrangement of the kind in the bottom of their plate and paper almirahs, and also in their show cases.

The Autocrat of the Work-Room.— Lantern Slides.

During the next few months, it is only reasonable to suppose that photographers will turn their attention to the preparation of lantern slides, and it is quite likely that many of our readers will approach the work for the first time. It is to them particularly I intend to address my remarks.

It is always the best plan, when speaking to a beginner, to presume he is quite ignorant of the particular subject he wishes to learn; so I shall suppose the student is conversant with the development of a negative, but has never made a transparency.

The first requisite, then, in such a case is a good commercial plate specially made for this purpose; such plates are made by almost all dry plate makers under the name of "Lantern plates." The English standard size is $3\frac{1}{4}$ by $3\frac{1}{4}$ inches, and the price is usually one shilling a dozen. The plates are usually made in two rapidities; quick, for reduction in the camera, and slow, for contact printing by artificial light; the latter are the best for a beginner.

Almost the first thing that will strike the novice upon opening the box of plates will be the thin and transparent nature of the film, which renders it extremely difficult to tell at a glance which is the coated side.

If any doubt exists on this point, it may be easily removed by gently breathing upon one side of the plate; the breath will condense upon the glass side, but will have no visible effect upon the film.

The lantern plate must be put in contact with a negative in an ordinary printing frame and made secure—of course, in the dark room. The negative must then be placed about a foot from a parafin lamp fitted with a No. 2 burner, or two feet from a gas jet, fitted with a No. 3 Bray fish-tail burner.

The approximate exposure will be about twenty seconds, but will vary according to the make of plate; the correct exposure, however, can be determined after a trial or two.

If the negative is a very dense one it will be advisable to place it very near to the source of light; but, on the other hand, if very soft and delicate, it must be exposed considerably further from the light and a proportionately longer exposure given. This will give much better results in the lantern slide than could possibly be obtained by printing on albumen paper in the ordinary way. Various makers of plates advise various formulæ for developing them, but for my part I have never yet found a developer that gave me better results with all and every make of plate than hydroquinone. The following is my favourite preparation:—

No. 1.—Hydroquinone	... ...	720 grains.
Potassium bromide...	...	135 ,,
Sodium sulphite	... ...	9 ounces.
Water to	... ...	90 ,,

Dissolve the hydroquinone in from 4 to 6 ounces of alcohol, and add it gently, with constant shaking, to the other ingredients previously dissolved in about 70 ounces of the water; finally make up to 90 ounces.

No. 2.—Sodium carbonate...	...	$13\frac{1}{2}$ ounces
Potassium carbonate	...	$13\frac{1}{2}$,,
Water to	... ...	90 ,,

For normal exposures take equal parts of Nos. 1 and 2, and add to each ounce of the mixed developer from 1 to 2 ounces of water.

If hard black and white slides are wanted, it is only necessary to reduce the amount of added water, and add to each ounce from five to twenty drops of a ten per cent. solution of potassium bromide. If very soft effects are wanted, increase the proportion of water and add no bromide. It will, perhaps, be well to remark here that the developer used without water, or with only a very little, may be used for negatives with admirable effect.

In developing lantern slides, care must be taken to prevent the slightest deposit of fog upon the extreme high lights; plenty of red or yellow light may be used during development; but should there be *any* tendency to fog, the developer must be immediately poured into a graduate containing ten or twenty drops of bromide and an ounce or so of water, and then quickly returned to the developing dish. Should there be any fog it will be checked, while the deposit goes on in the shadows. In this case, development must be carried farther than is desired in the finished slide, so that the fog may be removed, after fixing, without unduly reducing the general density of the slide.

After development, the slide should be rinsed for a minute under the tap and then immersed in a fixing bath composed of three ounces of hypo to each pint of water. After fixing they must be well washed, unless they need reducing to clear them of fog and superfluous density, in which case immerse them (after a few minutes washing after fixing) in the following bath:—

Sat. sol. cyanide of potassium	30 drops.
Sat. sol. iodine (in alcohol)...	15 drops.
Water	1 ounce.

This bath acts very quickly, therefore it is important to remove the slides and well wash them *immediately* they become sufficiently clear.

To make the bath act more energetically, reduce the amount of water; to slow its action, add more.—*The Photogram.*

Choice of Subject.

By Xanthus Smith.

Choice of subject is an exceedingly important consideration for the majority of amateurs.

By a judicious choice of subject the finished work of one photographer will be universally interesting, while that of another, from lack of knowledge or happy tact in picking out that which he photographs will utterly fail to attract.

There are three leading considerations to be taken into account in making pictures with the camera. We must either aim at a truthful representation of something interesting to ourselves or our friends; or we must present a picture that tells a story and is of wide interest; or else strive to attain a result that is purely artistic, that is, dependent for its interest and success upon its composition and effect.

The first of these considerations is altogether the simplest and easiest. Views made as records alone need give us little care, but when we wish to give our work the wider interest of depicting some incident more or less striking or amusing, we must use our wits to the best advantage; we must, either by readiness and lucky chance, or by careful preparation, get the numerous incidents that are taking place connected with animated nature, either pathetic or humorous. The picturesque must enter largely into our subjects. Old people, generally of the lower walks of life, utterly unsophisticated, children and animals, give us the material that will make the most generally taking pictures, and if we can be so fortunate as to catch those incidents or happenings that are peculiar and of rare occurrence, and are such as would be interesting if described, we may rid ourselves of any care as to the artistic treatment of the subject because the picture will go upon its merits independent of art. Of course, if we can attain an artistic treatment in addition to a well-told story, it will be so much the greater triumph. But it is too much to expect to get both by photography alone. A combination of telling incident with fine artistic qualities makes those greatest of triumphs that we see only in the works of eminent artists, they are great for all time, and it seems in the course of nature that there are not very many of them to be produced.

Subjects founded on the third, or purely artistic side of art, will be the most difficult to manage.

The best field for such is out-door nature. Landscape, chiefly where the effects of open nature give us that vagueness and scope for the imagination, which we cannot have in dealing with close-at-hand subjects of animate life—and with sufficient knowledge and skill the most simple subjects in nature may often be made to yield the most interesting pictures. The securing of a suitable effect or treatment for a scene in nature is of prime importance. For a rugged mountain scene we do not want the calm and serene. Gathering storms and rolling, lowering mists, heighten the mysterious sentiment of such places, and should there be figures, let them be hurrying anxiously, as if storm-driven and anxious to be away from the wild, awe-inspiring region. Or a lone fisherman, where a mountain torrent dashes down, might be plying his hook, utterly oblivious to his surroundings in the eagerness of his pursuit.

For scenes that partake of the pastoral or beautiful we want a serene atmosphere, and all the intricacy and beauty of light and shadow that we can secure, and invariably a large amount of vapor or haziness.

In either the grand or the beautiful in the pictorial art, we must have a considerable amount of simplicity of arrangement, and the more breadth and force of effect we can have, the more impressive and interesting our pictures will be.

The introduction of appropriate skies is of prime importance in landscape. Cloud effects, while they heighten and complete the interest in full landscape scenes, are absolutely the making of simple, low horizon stretches of moor, or flat, sandy coast views. All persons of a poetic or artistic nature are great admirers of sky effects. The eminent poets have dwelt upon them to the delight of thousands of readers, and the eminent landscape painters have given the greatest attention to the rendering of interesting sky effects, thereby enriching the interest and beauty of their works for generations of admirers.

Many difficulties attend the securing of good sky effects in photographs; but, nevertheless, we would urgently recommend all photographers to devote as much time and attention as they can to securing good skies in their work—using any of the best known means. We are confident that in so doing they will be taking one of the most direct roads toward elevating their work as a fine art.—*The Photographic Times.*

A Few Hints for the Dark-Room.

By F. C. Lambert, M.A.

1. A place for everything, and everything in its place, is nowhere of more practical importance than in the dark-room. This applies, with especial emphasis, to those articles—bottles, dishes, brushes, etc.—which one is liable to want during the operations of changing or developing plates, etc.

2. When the eyes are more or less handicapped in the dim light it is a great help and comfort to have things so arranged that the sense of touch aids that of imperfect recognition. For instance, by the simple expedient of having the various bottles, measures, etc., used for developing, of *different sizes, shapes*, etc.; each one is recognized the instant the finger-tip touches it, and this soon becomes of such value that it will prevent one by mistake using the wrong thing—an accident by no means unlikely when the attention is concentrated upon some new problem or when very prompt action is called for to save a faulty exposure.

3 Each bottle will, of course, have its own label describing its contents, but usually the light is much too dim to see to read the label. It is expedient to mark each bottle with a distinctive letter, large and bold, with either black varnish or white enamel paint. Thus, P, for the pyro bottle; A, for ammonia; B, bromide, and so on.

4. Before commencing development, or any other operation which requires the light being turned low down, just spend a few minutes (1) in clearing away all things which are sure not to be needed, and (2) putting all those articles which may or are likely to be wanted each in its own place, so that, should anything at all unusual be needed, it shall be at hand.

5. Often it is not very easy to see quickly and clearly the graduation marks on the measures. This may be partly met by taking a rather hard lead pencil, bringing it to a good point, and then rubbing it into the fine lines cut on the glass. Or the marks may be blacked with a little black varnish, thinned with turpentine if needful, and applied with a fine pointed paint brush.

6. Everyone knows, from practical and personal experience, that the human eye takes time to accommodate its sensitiveness to great differences of contrast. For instance, passing out of sunshine into a dark cellar one feels blind at first and not able to see a candle; but presently this little light enables one to see much that at first was quite invisible. In the same way we photographers all know how the sensitiveness of our vision increases after being in the red light

of the dark-room a short time. If, now, on entering the room, we first arrange, by a good light, all things needed, and then rather slowly lower the light until it is almost absolute darkness and close the eyes and rest them for a few minutes, then, on opening them again and only slightly raising the light, we shall feel not only the great comfort of the rest, but also will be able to use less light than usual and see more clearly the growth of the image than if we entered the dark-room from bright daylight and began at once to fumble about and upset things and generally to waste time and experience discomfort.—*The Photographic Times.*

Pyrocatechin as a Developer.

By C. F. Townsend, F.C.S.

Now that pyrocatechin is being produced on a commercial scale, it might be worth while to give it a fair trial as a developer. In appearance it is not unlike hydroquinone, and is very soluble in water, alcohol, and ether. In constitution it is isomeric with hydroquinone and resorcin, being the 1.2 or ortho-dioxybenzene, &c. (not the 1·3 or meta-derivative, as wrongly stated in the *Revue Suisse*).

It may be interesting to note that it is produced by the distillation of catechu.

According to the statement of Poulenc Frères, in the *Revue Suisse*, pyrocatechin possesses the following advantages as a developer :—

(1) Pyrocatechin gives the negatives the delicacy of pyrogallic acid.

(2) The solution only alters very slowly on exposure to air, its permanency being superior to that of hydroquinone, eikonogen, &c.

(3) The color of the negatives is very favorable to printing, which proceeds more rapidly than with other developers. It gives brilliant prints without any hardness.

(4) The developer does not fog the plates, nor does it act on the fingers.

(5) Its actual price is equal to, if not less than, that of the products actually employed as developers, the same bath being capable of developing a considerable number of plates.

The following are the principal formulæ :—

Solution A.

Water	1 oz.
Sulphite of soda	20 grs.
Pyrocatechin	10 ,,

Solution B.

Water	1 oz.
Carbonate of potash	100 grs.

For use in ordinary rapid exposures in a good light take one part A, one part B, one part water. For very under-exposed plates take one part A and two parts B. For plates that have had a timed exposure the following one-solution developer is recommended :—

Water	2 oz.
Sulphite of soda	25 grs.
Carbonate of soda	50 ,,
Pyrocatechin	10 ,,

To bring out contrasts a 2 per cent. solution of boracic acid is recommended instead of bromide.

List of Members, resident in Madras, whose Dark Rooms are available for use by Members of the Madras Amateur Photographic Society, whenever they visit Madras.

J. L. Van Geyzel, Dare's Gardens, Chetput.
J. L. Walker, Holloway's Gardens, Pantheon Road.
T. P. S. Nagaratnam, 47, Malayappen Street, Black Town.
A. W. G. Stranack, Kilpauk.
A. Chatterton, College of Engineering, Chepauk.
W. H. Oakes, Anderson's Road, Nungumbaukum.

Surg.-Col. P. H. Benson, Mysore.

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For Sale.—One George Hare's 10 x 8 Double Extension Brass Bound Mahogany Camera, Square Bellows, Double Swing and Reversing Back, Double Movement Front, Rack and Pinion Focussing, 2 Double Dark Slides, Tripod Stand, and fitted with Ross' 10 x 8 Rapid Symmetrical Lens with a set of Waterhouse diaphragms, also 2 Teakwood Travelling Cases, Rs. 420.

One Grubb's Rapid Aplanatic Doublet Lens with a set of Waterhouse diaphragm, Rs. 125.

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